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By Samuel Webb

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# Dissertation on the Treatment of Intermittent fever

By Samuel Webb of Virginia

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The Intermittent form of fever is almost entirely confined to low and marshy countries, and periodically returns in the autumnal season of the year. These circumstances were early taken notice of by physicians and long occupied their ingenuity in explaining the cause, why intermittents should prevail not only at certain seasons of the year, but also in particular situations.

About the middle of the seventeenth century Lancisi an Italian Physician reflecting that autumn was a season in which an extensive putrefaction of vegetable matter took place, threw out the idea that this putrefaction might impart some peculiar quality to the exhalations from stagnant water and moist grounds, which was the productive cause of intermittent fever. This opinion was readily adopted by the cotemporaries of Lancisi, as affording the most satisfactory solution of the problem; and is acknowledged by the physicians of the present day. But what is the particular nature of this miasma it is impossible to say, it being utterly impracticable to contemplate it in an embodyed state.

The intermittent fever is that, which consists of a succession of paroxysms, between each of which there is a distinct and perfect intermission from febrile symptoms.

Different appellations have been given to this fever, according to the space of time observed between the periods of its return. When it comes on within the space of

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every twenty-four hours, it is called a quotidian; when it appears every other day, or there is a space of forty-eight hours between its attacks, it is called a tertian; and when it attends on the first and fourth day, with an interval of seventy-two hours, it is named a quartan. That which is marked by a tertian type is most apt to prevail in the spring, and is, indeed, the most predominant form of the disease. The quartan is the most intractable and is chiefly prevalent in Autumn.

Of the quotidian, tertian, and quartan intermittents, there are several varieties and forms; as the double tertian, having a paroxysm every day with the alternate paroxysms similar to one another. The double tertian, with two paroxysms every other day. The triple tertian, with two paroxysms on one day, and one on the next. The double quartan, with two paroxysms on the first day, none on the second and third, and two again on the fourth. The triple quartan, with three paroxysms every fourth day.

In conducting the treatment of intermittent fever, a physician should be governed by two leading indications. First: he is to terminate the paroxysm as soon as possible. — Secondly: during the intermission he must endeavour to prevent the recurrence of the paroxysm at the usual or any succeeding period.

In proceeding to the accomplishment of the first indication, he must aim at procureing a solution of the stage which is present, by inducing that which is to succeed, till a general sweat comes on.

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A practitioner called to a patient in the cold fit of an intermittent should order him to be put to bed and kept warm; warm diluting but not stimulating drinks are to be given him, and warm bricks, or bottles of hot water should be applyed to the soles of the feet, which will be found useful, not only in shortening the cold stage, but also in promoteing the comfort of the patient. Such are the few directions to be attended to in manageing the cold fit of an intermittent; but after the hot fit has supervened measures of a much more ample and diversified nature are to be adopted.

As every cause of irritation tends to prolong the hot fit, the patient is to be kept perfectly at rest; his thirst which will be, in all probability, very great, must be allayed by frequent, but moderate draughts of cool water; and the temperature of his room is to be graduated by his feelings.

The attention of the practitioner must be directed, in a particular manner, to the condition of the stomach, as the chief source of irritation may commonly be traced up to some derangement of that viscus. When the patient complains of a good deal of gastric distress, an emetic is proper; but should a spontaneous vomiting occur, it will be only necessary to encourage it by draughts of warm water, or warm chamomile tea.

Should an inflammatory diathesis prevail in the system, venesection must be had recourse to. I am well aware that blood-letting in intermittent fever is considered by many as unnecessary, if not altogether improper. But I

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think their opinions are formed from incorrect data, and that future experience will remove their prejudice and convince them that venesection when judiciously employed is amongst the most powerful resources we are possessed of for arresting the progress of an intermittent fever.

Whether venesection should be classed among the curative means in the treatment of an intermittent, or only considered as a remedy for counteracting a certain state of the system, which tends to protract the disease, I am unable to determine. But I am fully assured, that the timely and judicious use of the lancet will prepare the way for the exhibition of other remedies; and obviate that remarkable tendency to visceral congestion which is always present in intermittent fever.

But to induce perspiration will be the leading object with the physician: and for this purpose the preparations of antimony are better adapted than any other article. The James' powder has long enjoyed a distinguished reputation as a diaphoretic but I am not conscious that it possesses any superior energies over the tartar emetic, and am therefore content with prescribing this latter preparation of antimony. The form in which I prefer giving the tartar emetic is the watery solution. — one grain dissolved in six table spoonfuls of water, and one table spoonful of the mixture administered every hour. sometimes nitre may be advantageously added to the solution, in the proportion of ten or twelve grains to each dose. The spiritus mindereri or acetate of ammonia is a

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medicine which may be exhibited with peculiar propriety in the hot fit of a paroxysm, as it possesses decided diaphoretic properties without producing any increase of vascular action.

It now only remains that the measures to be pursued during the apyrexia, should be mentioned. These measures are of two kinds; those which are proper immediately before the period of accession of the next paroxysm, or when the patient is affected with langour or sense of debility, with yawning and stretching; and those which are proper in the entire intermission.

In the first case, a dose of tartar emetic will often have the effect of diverting the threatened attack by makeing a powerful impression on the system, and determining the circulation to the surface of the body. A dose of laudanum is thought, by some, to be still more effectual in checking the approach of the paroxysm. When it is given it will be necessary to confine the patient to bed and give him frequent draughts of warm water, with a view to solicit the action of the medicine to the surface.

In the entire intermission our principal reliance is on the powers of the Peruvian bark. This valuable medicine was unknown to the ancients. nor did the moderns come very willingly into the use of it. A few physicians there were who supported its claims, but many charged it with being productive of complaints, far more alarming than the one which it was to cure. But uniform and successful experience overcame at length their obstinacy and their fears. I would not be understood, however,

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to say that all disputes and complaints on this subject are at an end. There are countries in which this valuable remedy is still held in disrepute. Among the Dutch and the Germans the common people reject it entirely. but all the charges which they prefer against it, are to be imputed to an injudicious method of employing it. For in Great Britain and the United States, where it has been used with greater latitude than, perhaps, any where else, the Peruvian bark is no longer held in suspicion, but is considered as having substantiated its claims to general acceptation by the uniform success that has attended its exhibition. The efficacy of the Peruvian bark is most observable, when it is given in substance. about a drachm of the powdered bark may be given, every hour during the intermission.

That the bark is to be given during the period of apyrexia is a point, I believe, perfectly agreed upon among physicians; but there is much contrariety of opinion, among them, as to the precise time of that period, at which it should be administered in the largest quantity. Dr Cullen says, towards the close of the apyrexia as near to the time of accession as the condition of the patients stomach will allow. Alibert on the contrary asserts, that the bark should be given at as remote a distance of time as possible from the next expected paroxysm. with a view of obtaining every advantage, I would recommend the bark to be given from the beginning to the close of the apyrexia, in doses as large and as often repeated as the stomach will retain.

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When the bark disagrees with the stomach some aromatic should be added to each dose. If the bark produce costiveness let five or six grains of rhubarb be given with each dose. Does it produce much purging combine with each dose five or six drops of laudanum. I say much purging — for I think if the bark only moves the bowels, moderately, two or three times a-day, the laudanum had better not be given. I have never heard of such a moderately purgative effect having any influence in preventing a cure. On the contrary, it even promotes it by keeping the bowels in a soluble condition, and thus preventing any accumulation of depraved matters in the alimentary canal.

The virtues of the peruvian bark are thought to be augmented by a combination with the serpentaria. This is the opinion of the distinguished gentleman who fills the practical chair in this university: he moreover says that the stomach will retain the bark when given in this combination, when it would reject it in any other shape.

From the high terms of praise in which I have spoken of the peruvian bark, I would not have it inferred that it is to be given in all cases of intermittent fever without any reference to the state of the system. On the contrary, whenever there is an inflammatory diathesis prevailing in the system: and more particularly when there is much congestion in the liver or spleen, the bark is altogether improper.

In this case it will be necessary to resort to the directly

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depleting remedies. Blisters over the affected viscus are of the first importance.

There are some other articles which have been found successful in the cure of the ague and fever. The angustura has lately been introduced as a remedy in this disease, and is declared to be possessed of no ordinary degree of efficacy. indeed it would appear from some reports to have succeeded in agues when the peruvian bark had failed. this article is given in rather smaller doses than the peruvian bark.

The chironia angularis is another medicine that has, of late years been exhibited with very good success in the intermittents of our country. The usual mode of prescribing it is in strong infusion, of which copious draughts are directed to be repeatedly taken during the day.

Various metallic preparations are employed. but of these I shall only notice arsenic. this substance, though the most destructive of the mineral poisons, when properly prepared becomes an article not only safe but one possessed of the greatest efficacy in the treatment of intermittent fever. Arsenic is most generally given in the form of Fowlers solution. It is prepared by taking sixty-four grains of the white oxide of arsenic, and the same quantity of sub-carbonate of potash; these are to be boiled together in a pint of distilled water, until the arsenic be entirely dissolved. When the solution is cold, add compound spirit of lavender, half an ounce and as much of distilled water as will make the whole exactly ℥xvi

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the use of this solution must be commenced in doses of four drops, three times a-day, and gradually increased to double that quantity; its use being occasionally intermitted, not persisted in if it does not soon prove effectual, and immediately relinquished if it occasion nausea or purging.

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